

Workforce Indicators at your Fingertips: QWI Explorer

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Presented by: Eric Coyle
Data Dissemination Specialist
U.S. Census Bureau



Agenda

Longitudinal Employer-Household Dynamics (LEHD)/Local Employment Dynamics (LED)

- LEHD/LED Overview

Understanding N.A.I.C.S.

LEHD/LED Web Tools

Additional Resources

Q&A

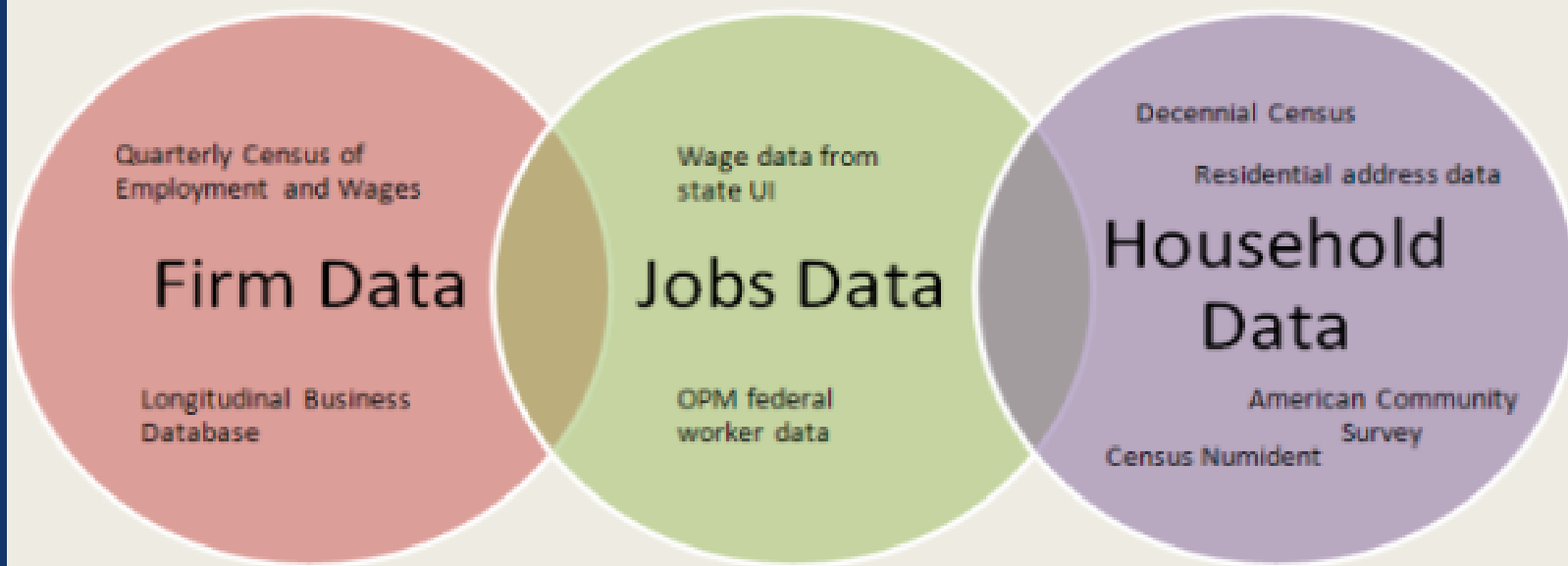
Longitudinal Employer-Household Dynamics (LEHD)

What is LEHD?

Until recently, many interactions between workers and firms were unobservable because there existed no link between employer and household data in the U.S. statistical system.

Since 1999 the Longitudinal Employer-Household Dynamics (LEHD) program at the U.S. Census Bureau has sought to fill this gap in the nation's statistical infrastructure by building a comprehensive database of longitudinally linked jobs data. The potential uses of the LEHD jobs data are far-reaching, both for unraveling important economic questions and for the provision of new statistical products.

The Employer-Employee Linked LEHD Data

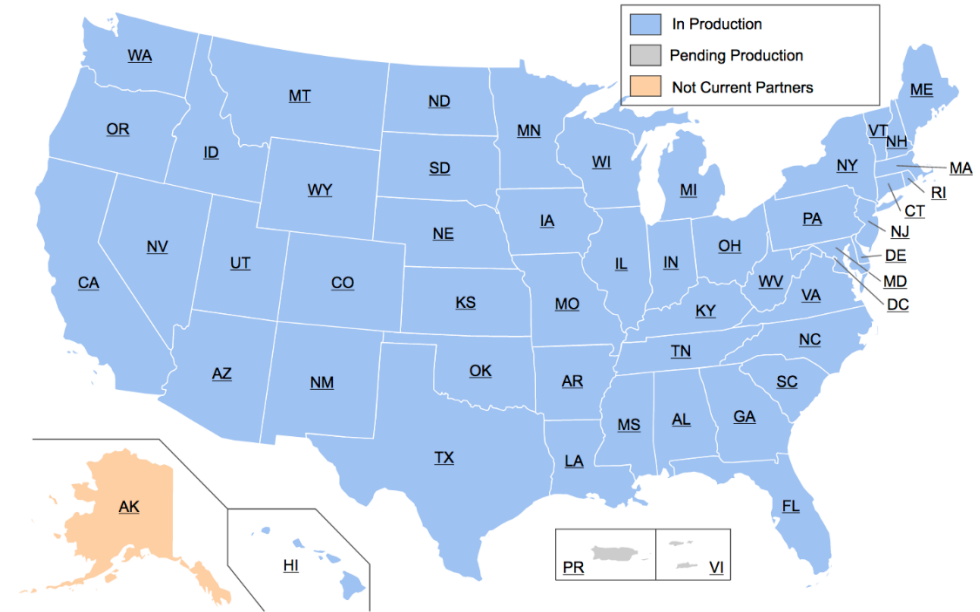


Where Do the Data Come From?

- Local Employment Dynamics (LED) Partnership
 - Begun in late 1990s with a few states
 - Some states have time series back to 1990 (AZ goes back to 2004)
 - Not currently producing data for *Alaska, Puerto Rico, and Virgin Islands

*Alaska data available in Quarterly Workforce Indicator (QWI) Explorer tool

State Partners



Alabama	Illinois	Montana	Rhode Island
Alaska	Indiana	Nebraska	South Carolina
Arizona	Iowa	Nevada	South Dakota
Arkansas	Kansas	New Hampshire	Tennessee
California	Kentucky	New Jersey	Texas
Colorado	Louisiana	New Mexico	Utah
Connecticut	Maine	New York	Vermont
District of Columbia	Maryland	North Carolina	Virginia
Delaware	Massachusetts	North Dakota	Washington
Florida	Michigan	Ohio	West Virginia
Georgia	Minnesota	Oklahoma	Wisconsin
Hawaii	Mississippi	Oregon	Wyoming
Idaho	Missouri	Pennsylvania	Puerto Rico
			Virgin Islands

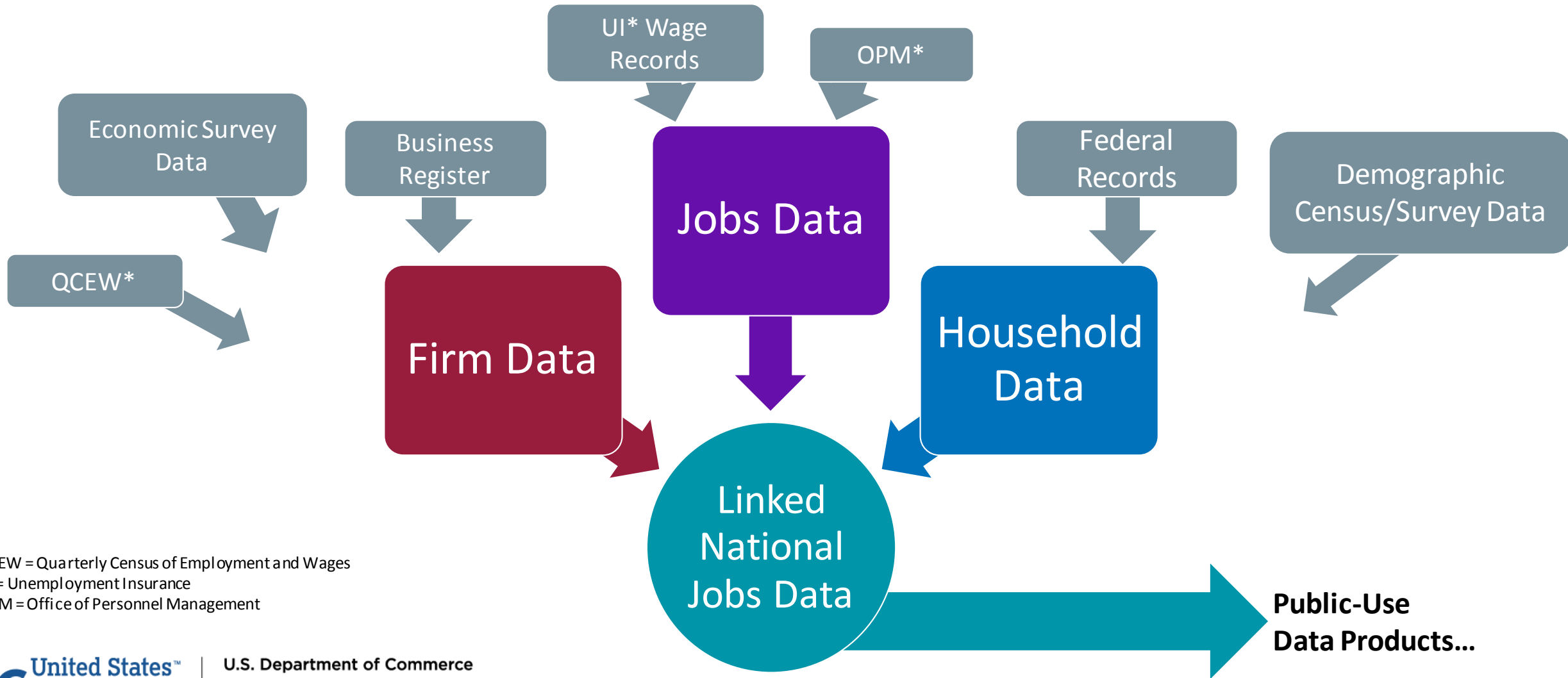
Local Employment Dynamics (LED) Data

- Provides unprecedented detail about America's jobs, workers and local economies.
- Provides longitudinal record of U.S. Employment
- Integrates existing data from state-supplied administrative records on workers and employers
- LED is an integral part of the DOC Open Government Plan to unlock public access to high-value government data

Building on State Inputs

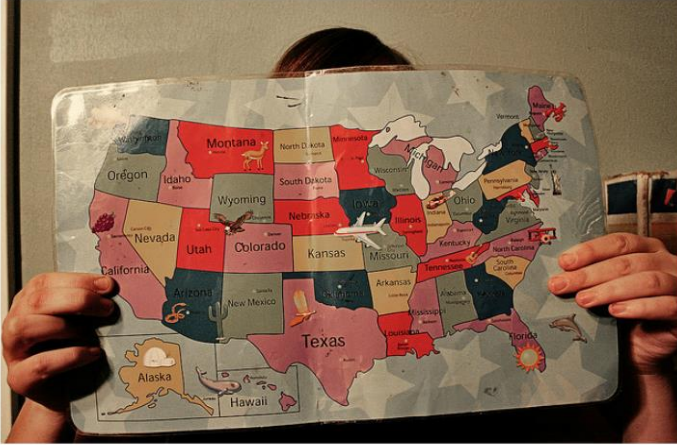
- We combine **state records** with other admin/census/survey data from the **Census Bureau** and **other Federal agencies**
- We can then create public statistics on:
 - Firms & Establishments
 - Jobs & Workers
 - By Firm and Person Characteristics
- Without new respondent burden

Admin. Records & LED Infrastructure



QCEW = Quarterly Census of Employment and Wages
UI = Unemployment Insurance
OPM = Office of Personnel Management

Local Employer-Household Dynamics: Public Use Data Products



The Quarterly Workforce Indicators (QWI)

- Employment
- Job Creation, Job Destruction, Hires, Separations, Turnover
- By industry, county, CBSA, state, Workforce Investment Area (WIA) and worker characteristics

Job-to-Job Flows (J2J)

- Traces worker movement through industries, geographic labor markets, and to/from employment

OnTheMap/LEHD Origin-Destination Employment Statistics (LODES)

- Employment at the Census block level by where workers live and work
- Popular uses - local economic development, business site selection, and emergency planning



U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
[census.gov](https://www.census.gov)



Post-Secondary Employment Outcomes (PSEO)

- New set of statistics on the earnings and employment outcomes of graduates of post-secondary institutions in the United States

Important to Know

- Job data cover over 95% of private employment and most state, local, and federal jobs
- Contains only UI-covered jobs: no US Post Office, no military jobs, no self-employed, 1099s, *etc.*
- Excludes some secretive 3-letter agencies (NSA, FBI)
- Employment and wages measured at start of Q2
- OnTheMap: “Distance” is a straight-distance calculation: reported primary place of work, reported home location. Not on a road network, not a commute measurement
- OnTheMap: 2-digit NAICS only; 3-digit NAICS may be added to the J2J tool.

North American Industry Classification System (NAICS)

Getting Started: Learning Your Industry

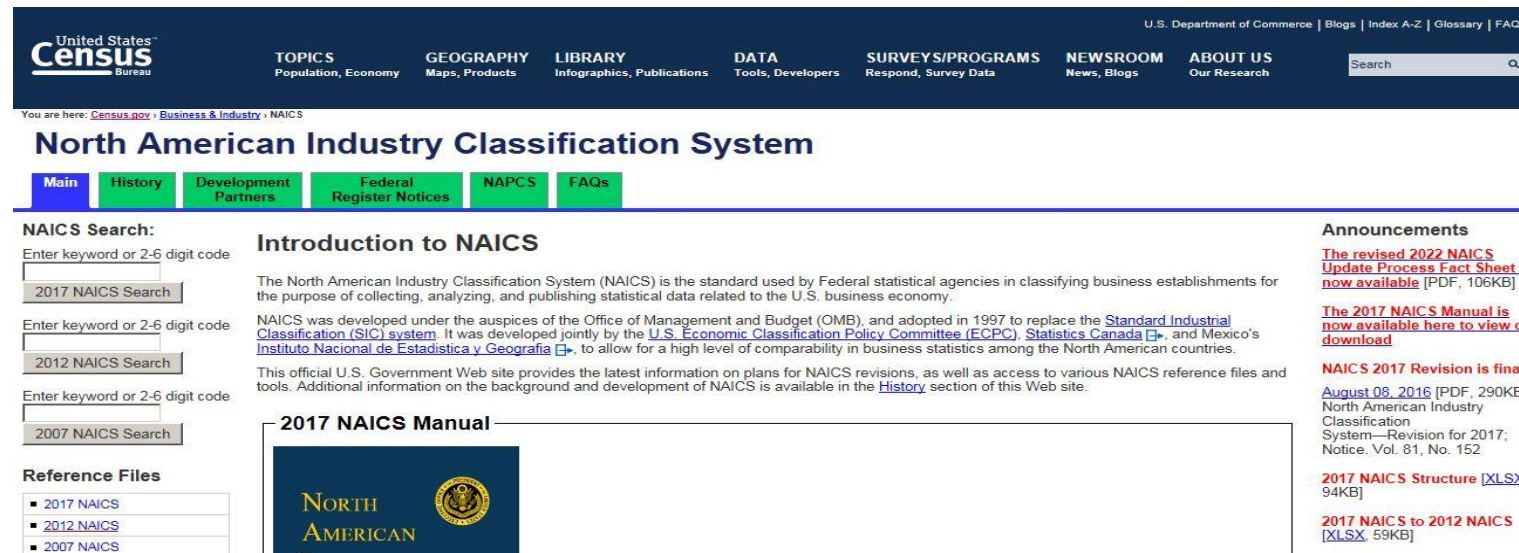
NAICS Codes

- North American Industry Classification System
 - Launched in 1997 as part of NAFTA
 - Codes are updated every 5 years (end in 2 & 7)
 - Hierarchical

<i>Level</i>	<i>Code</i>	<i>Examples</i>
Sector	45	Retail Trade
Sub-Sector	451	Sporting Goods, Hobby, Book, and Music Stores
Industry Group	4511	Sporting Goods, Hobby, and Musical Instrument Stores
Industry	45112	Hobby, Toy, and Game Stores
U.S. Industry	451120	Hobby, Toy, and Game Stores

More Information

- NAICS web site (<https://www.census.gov/eos/www/naics/>)
 - Industry definitions and Concordance tables
 - Relationships to other systems
 - Federal Register Notices



The screenshot shows the official U.S. Census Bureau website for the North American Industry Classification System (NAICS). The header includes the Census Bureau logo and navigation links for Topics, Geography, Library, Data, Surveys/Programs, Newsroom, and About Us. The main content area features a search bar, a breadcrumb trail, and a title for the NAICS page. Below the title are tabs for Main, History, Development Partners, Federal Register Notices, NAPCS, and FAQs. The left sidebar contains a 'NAICS Search' section with three input fields for keyword or 2-6 digit code searches, and a 'Reference Files' section with links to 2017, 2012, and 2007 NAICS documents. The main content area has an 'Introduction to NAICS' section with a paragraph about the system's purpose and development, and a '2017 NAICS Manual' section with a thumbnail image. The right sidebar contains an 'Announcements' section with links to the revised 2022 NAICS Update Process Fact Sheet, the 2017 NAICS Manual, and the 2017 NAICS Revision final August 08, 2016 PDF, along with links to the 2017 NAICS Structure and the 2017 NAICS to 2012 NAICS XLSX file.

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Our Research

You are here: [Census.gov](#) > [Business & Industry](#) > NAICS

North American Industry Classification System

Main History Development Partners Federal Register Notices NAPCS FAQs

NAICS Search:

Enter keyword or 2-6 digit code
2017 NAICS Search

Enter keyword or 2-6 digit code
2012 NAICS Search

Enter keyword or 2-6 digit code
2007 NAICS Search

Reference Files

- 2017 NAICS
- 2012 NAICS
- 2007 NAICS

Introduction to NAICS

The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

NAICS was developed under the auspices of the Office of Management and Budget (OMB), and adopted in 1997 to replace the [Standard Industrial Classification \(SIC\) system](#). It was developed jointly by the [U.S. Economic Classification Policy Committee \(ECPC\)](#), [Statistics Canada](#), and Mexico's [Instituto Nacional de Estadística y Geografía](#), to allow for a high level of comparability in business statistics among the North American countries.

This official U.S. Government Web site provides the latest information on plans for NAICS revisions, as well as access to various NAICS reference files and tools. Additional information on the background and development of NAICS is available in the [History](#) section of this Web site.

2017 NAICS Manual

Announcements

[The revised 2022 NAICS Update Process Fact Sheet is now available](#) [PDF, 106KB]

[The 2017 NAICS Manual is now available here to view or download](#)

NAICS 2017 Revision is final August 08, 2016 [PDF, 290KB]
North American Industry Classification System—Revision for 2017; Notice. Vol. 81, No. 152

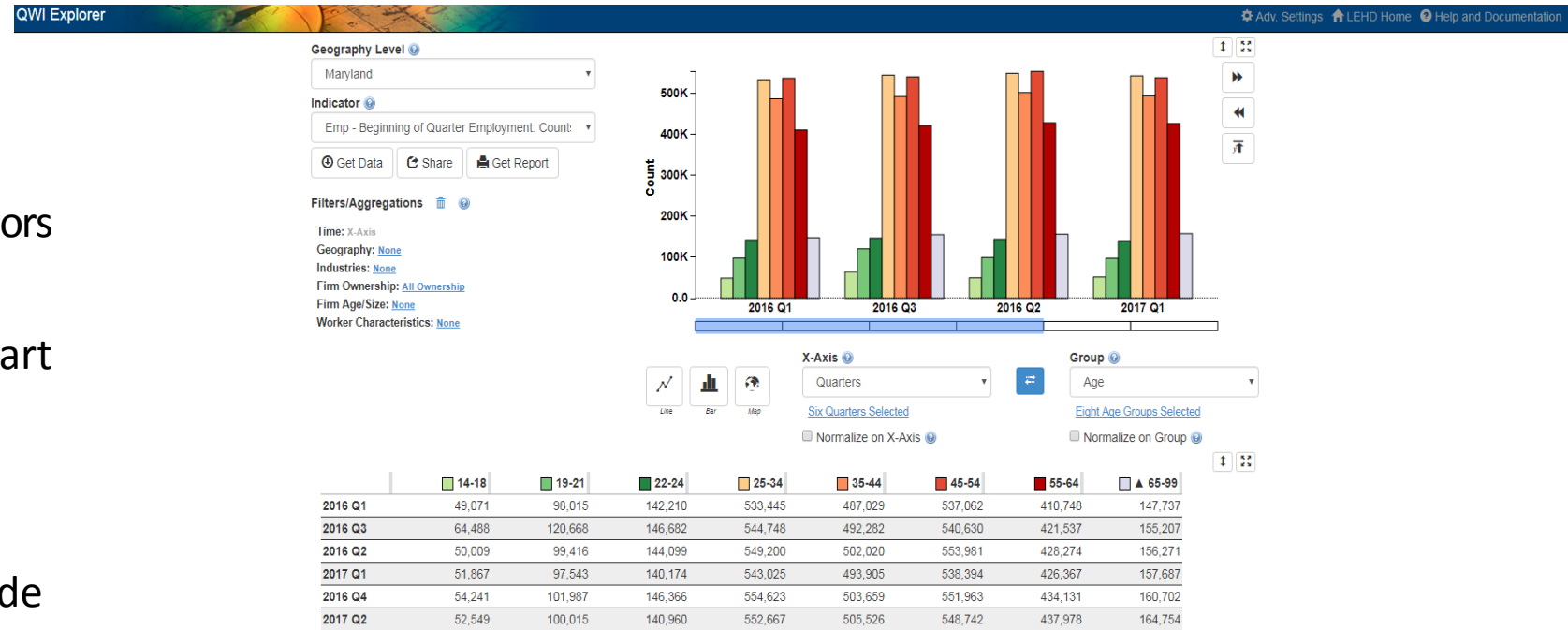
[2017 NAICS Structure](#) [XLSX, 94KB]

[2017 NAICS to 2012 NAICS](#) [XLSX, 59KB]

LEHD Public Data Tools

QWI Explorer

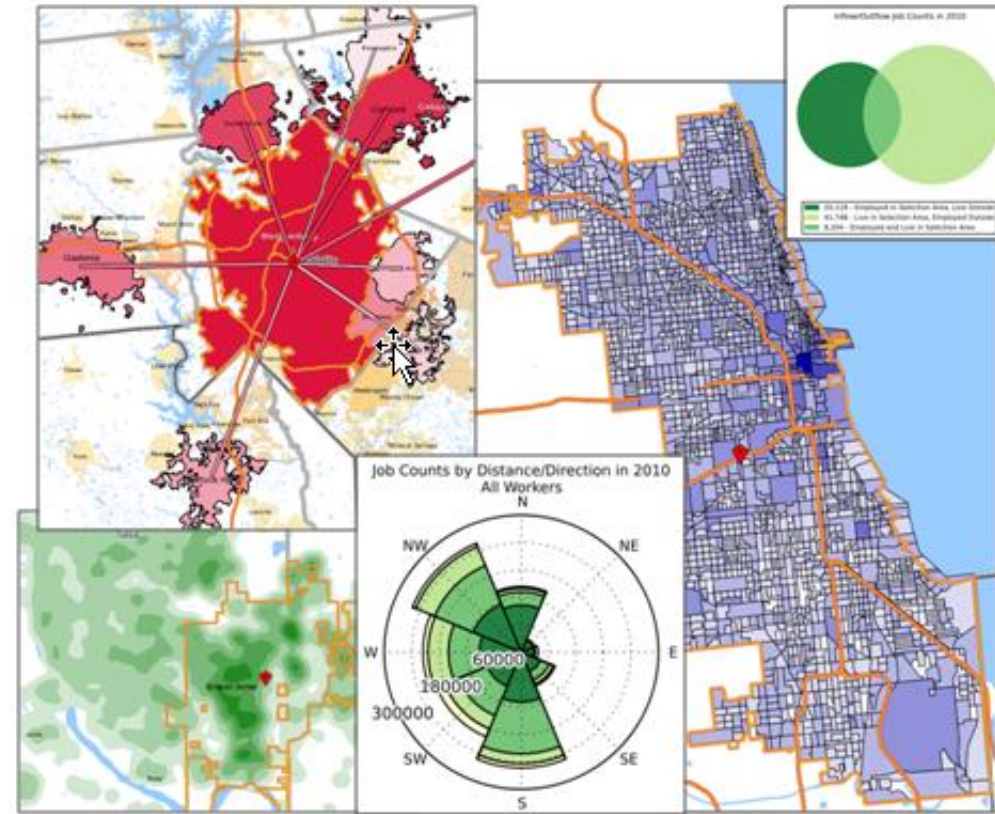
- ✓ 32 Quarterly Workforce Indicators
- ✓ Flexible Pivot Table and Map/Chart interface
- ✓ Data on detailed interactions between firms and workers include employment, employment change (individual and firm), and earnings
- ✓ Analyze/report by worker demographics: age, earnings, race, ethnicity, educational attainment, and sex



- ✓ Analyze/report by firm characteristics
 - ✓ NAICS classification (sector, 3, 4)
 - ✓ Firm age and firm size
- ✓ Quarterly data (9-12 months old)
- ✓ National and 50 states available (plus DC)

OnTheMap

- ✓ Where do workers live?
- ✓ Where do residents work?
- ✓ What are the commuter flows of a particular area?
- ✓ Analyze/report by worker demographics
 - ✓ Age, earnings, race, ethnicity, educational attainment, and sex
- ✓ Analyze/report by firm characteristics
 - ✓ NAICS Sector, firm age, and firm size



- ✓ 2002-2015 annual data
- ✓ 50 states available (plus DC)
- ✓ User-selected areas
- ✓ Based on Census Blocks
- ✓ Disclosure protection
- ✓ Flexible Inputs/Outputs

OnTheMap for Emergency Management



Hurricanes, Floods,
Winter Storms



Disaster Areas



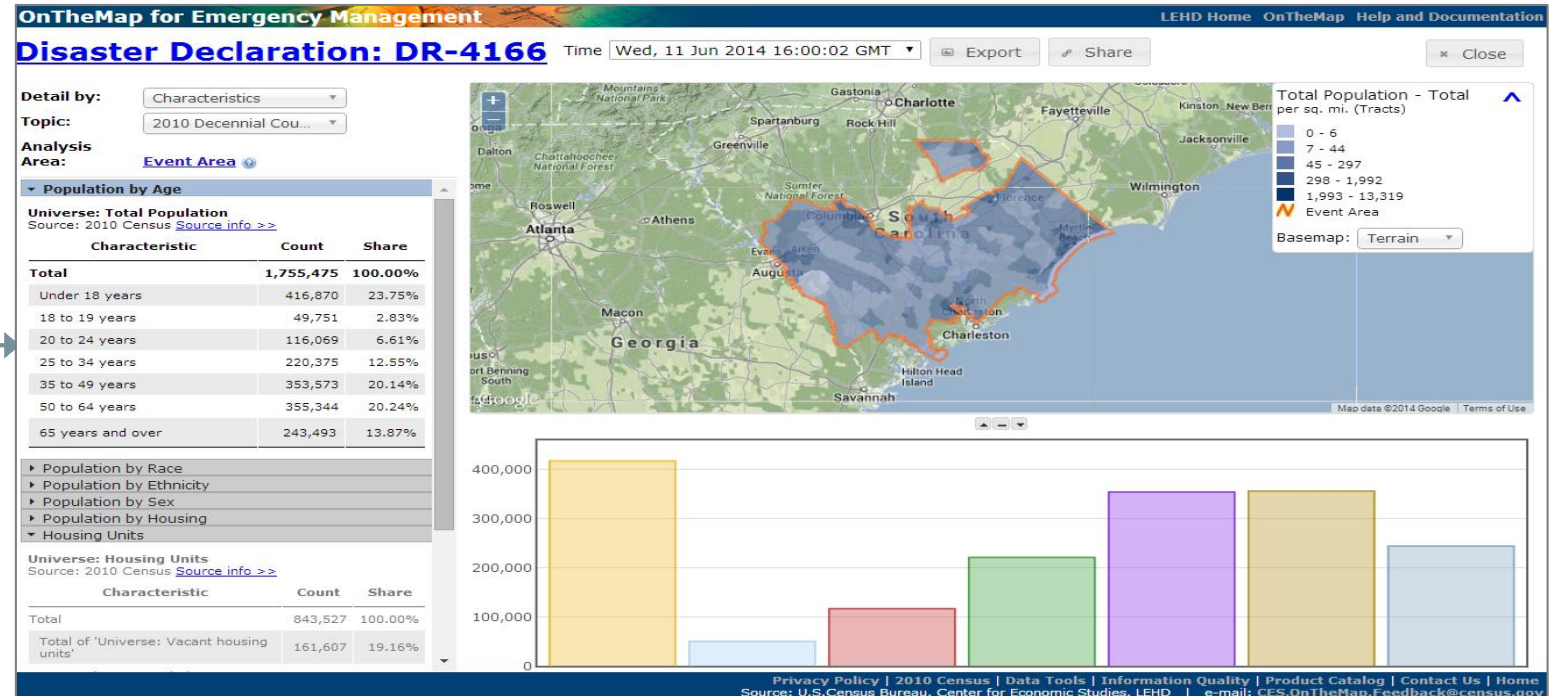
Wildfires



Demographic &
Economic Data



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Economics and Statistics Administration
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[census.gov](https://www.census.gov)



New Public Data Service for Emergency Preparedness & Response

- Comprehensive Reports
- Real-time Data Updates
- Easy-to-use & Interoperable
- Historical Event Archive
- Flexible Analyses & Visualizations



([OnTheMapEM](https://onthemapem.census.gov))

LED Extraction Tool

- ✓ Comprehensive QWI Data Coverage – Access 32 indicators, all available years/quarters, all firm/worker
- ✓ Characteristics, the Beta release of National QWI data, and all 50 states (plus the District of Columbia).
- ✓ Intuitive Interface – Streamlined interface walks users through the process of selecting the data they need and ignoring the data they don't. Complex and confusing choices are made invisible to the user by not allowing false combinations and graying-out unavailable options.

LED Extraction Tool - Quarterly Workforce Indicators (QWI)

LEHD Home Help and Documentation

1. Geography 2. Firm Characteristics 3. Worker Characteristics 4. Indicators 5. Quarters 6. Summary and Export

Geography Level

Search:

Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Missouri
Montana
Nebraska
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina

New Mexico
Counties: 33, Metro/Micropolitan Areas: 20, Workforce Investment Areas: 4

Geography Type

Counties
Micro/Metropolitan Areas
Workforce Investment Areas

Areas

Search:

Check All | Check None | Invert Selection

☒ 35 New Mexico
☐ 35001 Bernalillo, NM
☐ 35003 Catron, NM
☐ 35005 Chaves, NM
☐ 35006 Cibola, NM
☐ 35007 Colfax, NM
☐ 35009 Curry, NM
☐ 35011 De Baca, NM
☐ 35013 Doña Ana, NM
☐ 35015 Eddy, NM
☐ 35017 Grant, NM
☐ 35019 Guadalupe, NM
☐ 35021 Harding, NM
☐ 35023 Hidalgo, NM
☐ 35025 Lea, NM
☐ 35027 Lincoln, NM
☐ 35028 Los Alamos, NM
☐ 35029 Luna, NM
☐ 35031 McKinley, NM
☐ 35033 Mora, NM

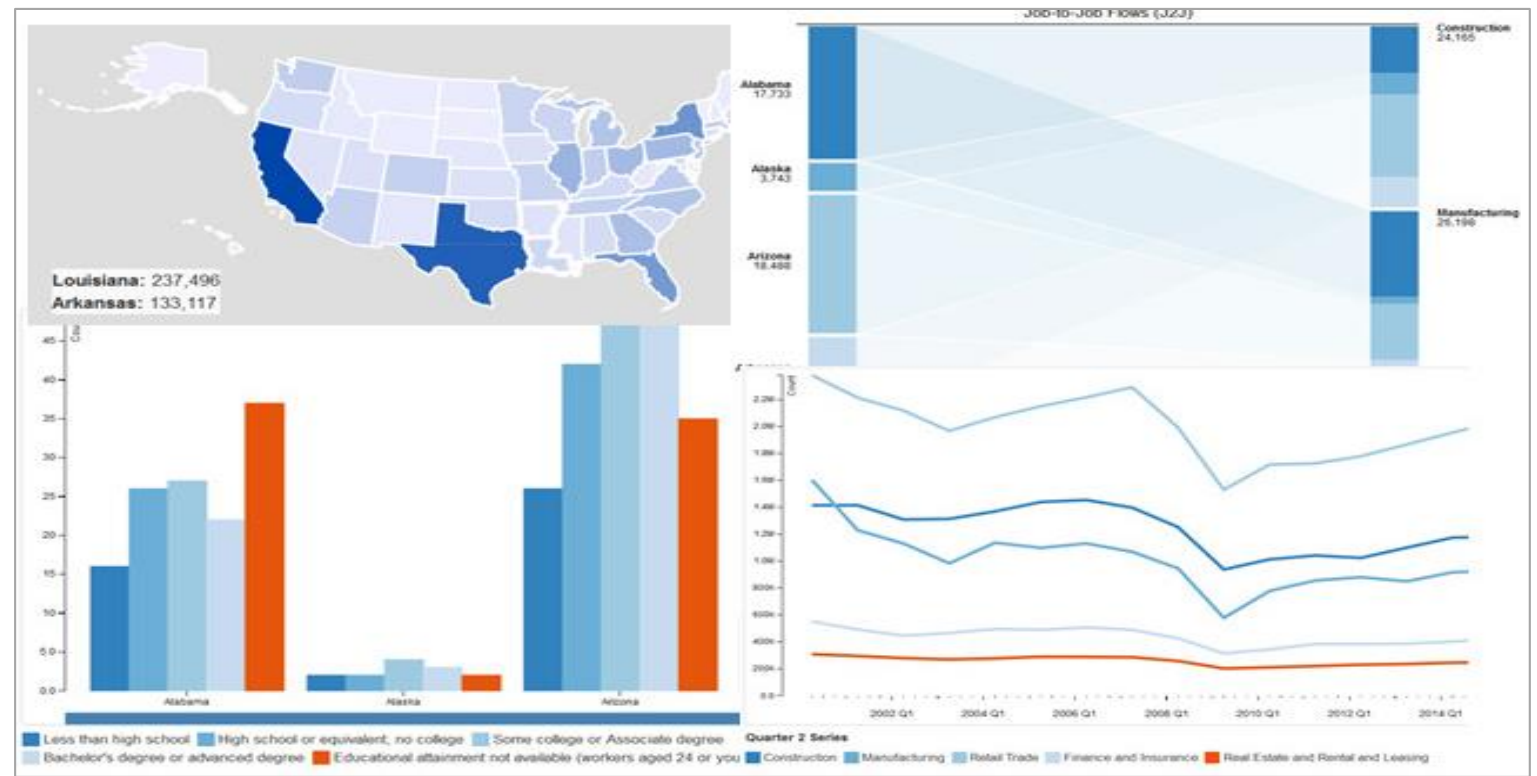
Click to select 35029 Luna, NM

Load Settings Continue to Firm Characteristics

- ✓ Quick Results – Data queries are processed quickly through a sequential job queue, then CSV and/or ZIP files (complete with metadata) are available for download. All completed data queries from a user's current session are saved for easy access in a query results list.
- ✓ Easy-To-Use Documentation – Online documentation, including tutorials and walkthroughs

J2J Explorer (Beta)

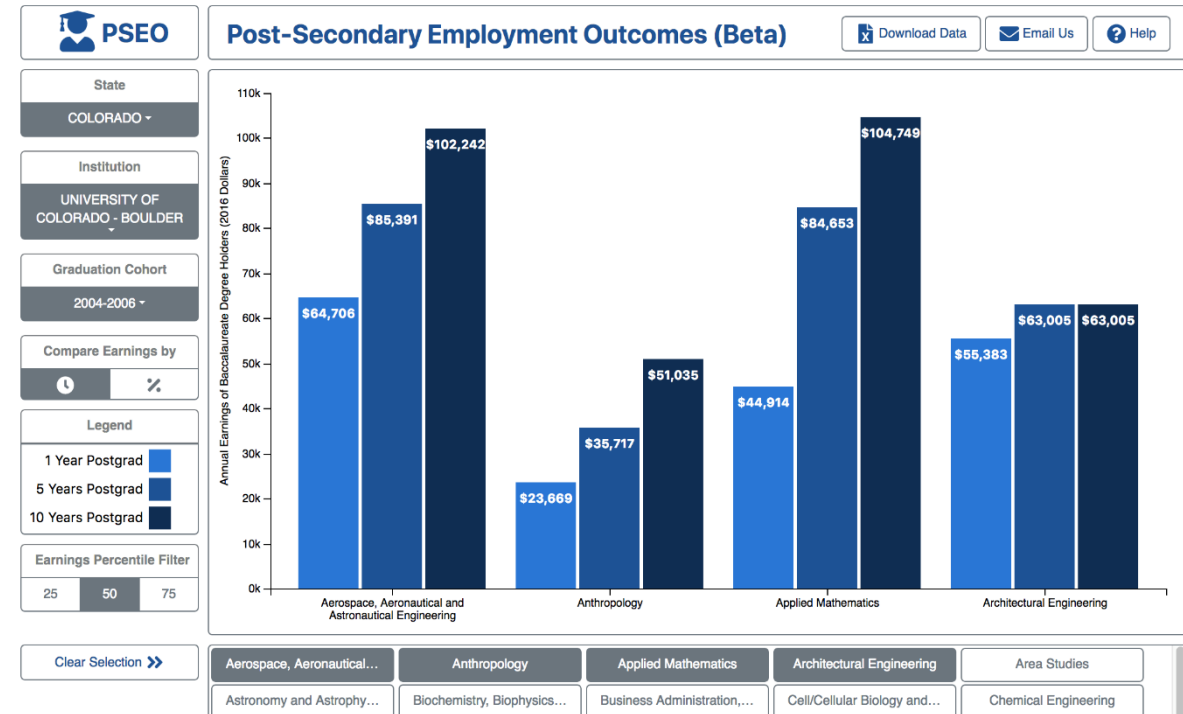
- ✓ 40 Measures of Worker Reallocation
- ✓ Six Visualization Modules with a flexible dashboard interface
- ✓ Export reports to Excel or CSV
- ✓ Trace worker movements through industries, geographic labor markets, and to/from employment
- ✓ Analyze/report by origin and destination at the national and state level



- ✓ Analyze/report by origin/destination firm characteristics, NAICS Sector, Firm age/firm size
- ✓ Analyze/report by worker demographics: age, earnings, race, ethnicity, educational attainment, and sex
- ✓ Data updated every quarter

Post-Secondary Employment Outcomes (PSEO) (Beta)

- ✓ Experimental tabulations
- ✓ Earnings and employment outcomes for college & university graduates by degree level, degree major, and post-secondary institution.
- ✓ State-of-the-art confidentiality protection mechanisms to protect the underlying data
- ✓ Data sharing partnerships between universities, university systems, State DOE, State Labor Market Information offices, and the U.S. Census Bureau
- ✓ Data are currently only available for post-graduate institutions whose transcript data has been made available to Census Bureau through a data-sharing agreement (Colorado, Michigan, Texas, & Wisconsin)



Download Public-Use Data

Two classes of files for Graduate Earnings tabulations:

- ✓ Comprehensive dataset, which includes all institutions and crossings.
- ✓ Earnings for each system, which is a subset of the above release.

Choosing Among LED Data Products

What do you want?	Potential Drawbacks	Data Product
Employment, hires, separations, turnover, or earnings by detailed firm and person characteristics; quarterly time resolution; relatively short data lag	No geography below county; no residential information	QWI
Employment for detailed or customized geography; residential patterns of the workforce; relationship between worker employment and home locations	Annual time resolution; less detailed firm/person characteristics	LODES
Transitions between jobs by timing and firm or worker characteristics; transitions to/from nonemployment	No worker characteristics by firm characteristics (except geography), no geography below states	J2J

Where Data is Published:

Data Product	Explore the data, answer questions, or get visualizations	Bulk data for use in analysis process/software	Live queries for building web applications
QWI	QWI Explorer	LED Extraction Tool and Raw data download	Census Bureau API
LODES	OnTheMap OnTheMap for Emergency Management	Raw data download	Future development
J2J	J2J Explorer	Raw data download	Future Development
PSEO	PSEO Visualization Tool	Raw data download	Future Development

Useful Links

- QWI Explorer
 - [Video Walkthrough](#)
 - [Example Scenarios](#)
- J2J Explorer
 - [Analysis Guides](#)
 - [FAQs](#)
- OnTheMap
 - [Getting Started](#)
 - [Analysis Guides](#)
 - [Other Tutorials](#)

Takeaways

- The LED Partnership provides unique workforce information and analysis tools at a relatively low cost
- LED data products can give insight into **local** and regional economies and labor markets
- LED's web tools provide free, 24/7 access to a basic analytical platform for the data

Stay Current

NEWSROOM



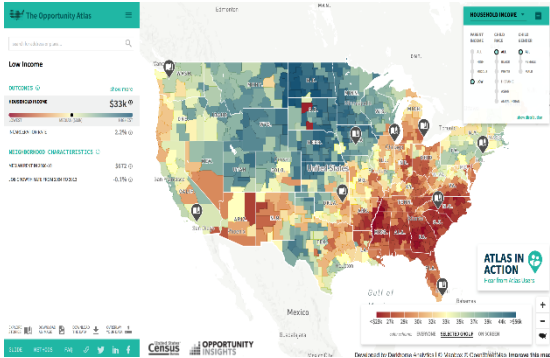
The latest news releases and statements from the U.S. Census Bureau. Also, find upcoming events, and useful information for media
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DIRECTOR'S BLOG



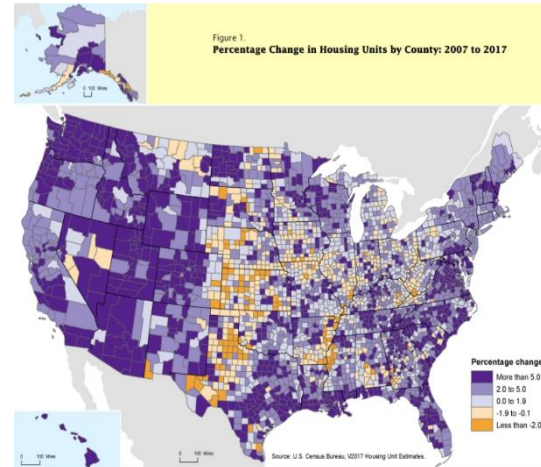
This blog gives the director's point of view on everything from Census Bureau news to how we measure America's people, places and economy.
[census.gov/newsroom/blogs/director.html](https://www.census.gov/newsroom/blogs/director.html)

AMERICA COUNTS



Featured stories on various topics such as families, housing, employment, business, education, the economy, emergency preparedness, and population
[census.gov/AmericaCounts](https://www.census.gov/AmericaCounts)

STATS FOR STORIES



Provides links to timely story ideas highlighting the Census Bureau's newsworthy statistics that relate to current events, observances, holidays, and anniversaries
[census.gov/newsroom/stories.html](https://www.census.gov/newsroom/stories.html)
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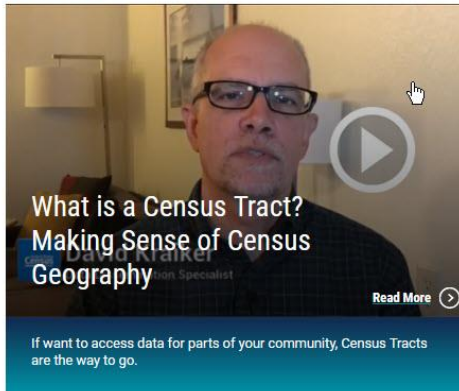
Data Dissemination and Training: census.gov/academy

Census Academy

Data Gems
Webinars
Courses - Coming Soon!



Data Gems



VIDEO | OCTOBER 11, 2018
How to Access Data for a Neighborhood or Service Area
By using Census Tracts, you can select the boundaries of your area, and access demographic, socioeconomic, and housing statistics about your community.

VIDEO | SEPTEMBER 21, 2018
How to Extract Data from the Census API
Learn how to use the Census API to explore or learn more about America's changing population and economy.

VIDEO | SEPTEMBER 21, 2018
Visualizing Characteristics Using the Census Engagement Navigator
Learn how to use this interactive visualization to quickly understand what areas of the country had high or low return rates in the 2010 census.

[VIEW ALL DATA GEMS](#)

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Additional Resources:
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Data Dissemination Specialist

Eric Coyle

(702) 236-3202

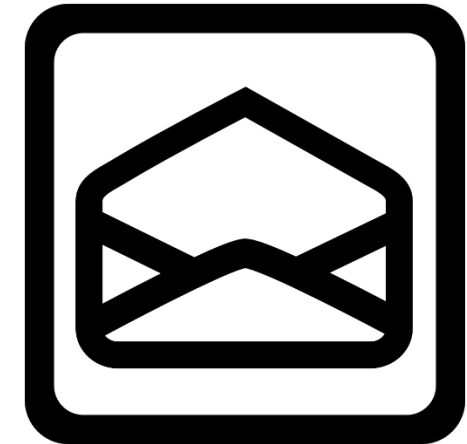
eric.a.coyle@census.gov



LEHD Program
Program Analyst

Earlene K.P. Dowell

earlene.kp.dowell@census.gov



Additional Assistance:

Toll-free number:

1-844-ASK-DATA (1-844-275-2342)

census.askdata@census.gov

Q&A and Thank You!